

Title 49—Transportation

CHAPTER I—MATERIALS TRANSPORTATION BUREAU, DEPARTMENT OF TRANSPORTATION

HAZARDOUS MATERIALS, CARRIAGE, AND SHIPPING SPECIFICATIONS

[Docket No. HM-139; Amdt. Nos. 172-36, 173-105, 174-28, 178-41, 179-18]

Conversion of Individual Exemptions to Regulations of General Applicability

AGENCY: Materials Transportation Bureau, DOT.

ACTION: Final rule.

SUMMARY: This action is being taken to incorporate into the Department's Hazardous Materials Regulations a number of changes based on the data analysis supplied in selected exemption applications, or from existing special permits and exemptions. The need for this action has been created by the public demand to make available new packaging and shipping alternatives that have proven themselves safe under the Department's special permit and exemption programs. The intended effect of these amendments is to provide wide access to the benefits of transportation innovations recognized and shown to be effective and safe.

EFFECTIVE DATE: June 2, 1977.

FOR FURTHER INFORMATION CONTACT:

Dr. C. H. Thompson, Acting Director,
Office of Hazardous Materials Operations,
2100 Second Street, SW., Wash-
ington, D.C. 20580, 202-426-0656.

SUPPLEMENTARY INFORMATION: On January 31, 1977, the Materials Transportation Bureau (MTB) published a Notice of Proposed Rulemaking, Docket HM-139; Notice 77-1 (42 FR 5708) which proposed these amendments. The background and the basis for incorporating these exemptions into the regulations were discussed in that notice. Interested persons were invited to give their views prior to the closing date of February 23, 1977. Primary drafters of this document are Darrell L. Raines and George Tenley.

The majority of comments received were in favor of the rule changes as proposed. There were several requests to modify slightly the wording of certain proposals. One commenter suggested that the proposed amendment to § 173.289(a)(2) be modified to delete the requirement that DOT Specification 111A 60ALW be "equipped with safety vents" for carriage of formic acid. It is argued the valves or vents are permissible on this type of car and relief valves are often used for formic acid; however, there should be no mandatory requirements for the safety vents. Upon further review

of DOT-E 5375, the exemption which gave rise to this rule change, the Bureau agrees with the commenter and the words "be equipped with safety vents" is deleted from the amendment to § 173.289(a)(2).

The Department of Defense requested that the amendment to § 174.104(b)(10) be revised to delete reference to "MILVANS" when high phosphorus cast iron brakeshoes are allowed on metal deck flat cars in COFC/TOFC service. The Bureau agrees with this suggestion since the safety analysis submitted by DOD in support of DOT-E 7419 did not limit such shipments to MILVAN containers only. Reference to "MILVANS" is therefore deleted in the amendment to § 174.104(b)(10).

Several comments were directed to the proposed addition of § 178.205-7(b)(4) to authorize pressure-sensitive tape as a method of closure of the DOT Specification 12B fiberboard box. A manufacturer of such tape agrees with the proposal but recommends that the location of the amendment be changed to § 178.205-17(a)(5). The Bureau agrees with this opinion since § 178.205-17 covers method of closures while § 178.205-7 covers only reinforced gummed tape. Accordingly the amendment for pressure-sensitive tape has been added as new paragraph (5) in § 178.205-17(a).

The only negative comments on Notice 77-1 concerned the proposed amendment to Retest Table I in § 173.31. This proposal was based on DOT-E 7047 which allows the retesting of DOT Specification 111A60W2 and 111A100W2 tank cars using commodities for which the tanks are approved when the tanks are less than ten years old. Several commenters, including the Manufacturing Chemists Association, argue that to change the footnote "d" as proposed for the DOT 111A60W2 and 111A100W2 tank cars would actually provide additional restrictive measures for retesting these tanks when they are over ten years old. The Bureau does not agree with this interpretation of the rule change. The intention of footnote "d" is not to restrict commodity testing of certain cars when they are over ten years old, but is rather to permit additional commodities to be used in retesting cars when they are not over ten years of age. In other words, a retest which falls in any year can be performed with a commodity that has the properties indicated in § 173.31(c)(2), i.e., a liquid of similar viscosity as water. However, when performing a retest within the first ten years, the liquid used for retesting need not have the same viscosity as water, but need only be a commodity for which the tank is approved.

Three other changes were initiated by the Bureau. The amendment of § 173.63(e) (DOT-E 7039) allows two 3-mil

polyethylene bags (one within the other) to be used in lieu of the required double-lining paper inside a DOT 12H fiberboard box for straight gelatin dynamites. The location of this amendment has been changed from the introductory paragraph in § 173.63(e) as proposed to § 173.63(e)(2). This relocation eliminates possible confusion that may be caused by placing the amendment in the introductory portion of that section.

Paragraph (c) of 49 CFR 173.242 has been revised by deleting the word "dry". This change is necessary to completely eliminate the need for DOT-E 7045 and because the majority of packages being shipped which are subject to this paragraph contain required amounts of packaged liquid chemicals which are non-hazardous.

The proposed amendment to § 173.264(a)(12) to authorize DOT Specification 111A100W2 (unlined) tank cars for the shipment of hydrofluoric acid of 70 percent strength has been withdrawn. Presently DOT-E 6636 authorizes only the DOT Specification 111A100W4 (rubber-lined) tank car. This tank car was recently added to § 173.264(a)(11) in Docket HM-139, Amendments 173-104, 177-38.

Analysis of these amendments and comments thereon indicate that the costs of regulatory enforcement will not be significantly affected, nor will additional costs be imposed on the private sector, consumers, or Federal, State, or local governments, since these amendments will authorize the general use of shipping alternatives previously available to only a few users under exemptions. The safety record or analysis of shipments under the exemptions, identified in Notice 77-1, demonstrate that significant environmental impacts will not result from any of these amendments.

Since these amendments are relaxations of existing rules, and place no additional burden on any person, they are being made effective in less than 30 days after publication in the FEDERAL REGISTER.

In consideration of the foregoing, 49 CFR Parts 172, 173, 174, 178, and 179 are amended as follows:

PART 172—HAZARDOUS MATERIALS TABLE AND HAZARDOUS MATERIALS COMMUNICATIONS REGULATIONS

§ 172.101 [Amended]

1. In § 172.101 the Hazardous Materials Table is amended by revising the entry for vinyl methyl ether, inhibited, and by adding, in alphabetical sequence, hexafluoropropylene oxide to read as follows:

§ 172.101 Hazardous Materials Table.

(1) *W/A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific requirements	(a) Passenger carrying aircraft or rail car	(b) Cargo only aircraft	(a) Cargo vessel	(b) Passenger vessel	(c) Other requirements
	(Add) Hexafluoropropylene oxide	Nonflammable gas	Nonflammable gas	173.306	173.304, 173.314	150	300	1, 2	1, 2	
	(Revise) Vinyl methyl ether	Flammable gas	Flammable gas	173.306	173.304, 173.314	Forbidden	20 pounds	1, 2		1. Stow away from living quarters.

PART 173—SHIPPERS-GENERAL REQUIREMENTS FOR SHIPMENTS AND PACKAGINGS

2. In § 173.31(c) Retest Table I is amended by revising the entry for DOT

Specification 111A60W2 and 111A100W2 tank cars to read as follows:

§ 173.31 Qualification, maintenance, and use of tank cars.

(c) * * *

RETEST TABLE I

Specification	Retest interval years—Tank and interior heater systems			Safety relief valve	Retest pressure—per square inch		
	Up to 10 yr	Over 10 to 22 yr	Over 22 yr		Tank	Safety relief valve—Start to discharge	Vapor tight
(Revise) DOT-111A60W2 ^a	5	3	1	2	60	35	28
(Revise) DOT-111A100W2 ^a	5	3	1	2	100	75	60

3. In § 173.63 paragraph (e) (2) is revised to read as follows:

§ 173.63 High explosive with liquid explosive ingredient.

(e) * * *

(2) Specification 12H, 23F, 23G, or 23H (§ 178.209, 178.214, 178.218, 178.219 of this subchapter). Fiberboard boxes. Specification 23G must be packed in an outer container consisting of at least 7-ply heavy kraft paper (see § 173.25 for additional required marking). Two 3-mil polyethylene bags (one within the other) may be used in place of the double lining paper when Specification 12H is the outside container. Not more than one such double bag may be packed in the Specification 12H fiberboard box.

4. In § 173.139 paragraph (a) (4) is revised to read as follows:

§ 173.139 Ethylene imine, inhibited, and propylene imine, inhibited.

(a) * * *

(4) Specification 104W, 105A100W, and 111A60W1 (§ 179.100, 179.101, 179.200, 179.201 of this subchapter). Tank cars, for ethylene imine, inhibited only. Specification 111A60W1 tank cars must be insulated in accordance with § 179.200-4 of this subchapter.

5. In § 173.163 paragraph (a) (7) is revised to read as follows:

§ 173.163 Chlorate of soda, chlorate of potash, and other chlorates.

(a) * * *

(7) Chlorate of soda, dry, is authorized for shipment in aluminum or steel tank car tanks, cargo tank vehicles, tight sift-proof covered hopper cars, or tight sift-proof covered hopper type motor vehicles. Tank car tanks, cargo tank vehicles, hopper cars, and hopper type motor vehicles must be thoroughly cleaned before loading. Tank car tanks may have their internal operating valve removed provided the bottom outlet is securely capped.

6. In § 173.242 paragraph (c) is revised to read as follows:

§ 173.242 Bottles containing corrosive liquids.

(c) Corrosive liquid solutions in securely closed bottles, in quantities necessary for preparing photographic processing mixtures and efficiently cushioned, may be packed in the same outside shipping container with required amounts of packaged chemicals not classed as hazardous materials by these regulations, provided no dangerous reaction would occur should the contents of bottles be

mixed with the packaged chemicals. Marking prescribed in Part 172 of this subchapter is not required.

7. In § 173.245 paragraphs (a) (18) and (a) (32) are revised to read as follows:

§ 173.245 Corrosive liquids not specifically provided for.

(a) * * *

(18) Specification 12A (§ 178.210 of this subchapter). Fiberboard boxes with inside glass, polyethylene, or other non-fragile plastic bottles not over 5-quart capacity each. Not more than 4 inside glass bottles exceeding 5-pint capacity each shall be packed in the outside container. Shipper must have established that the completed package meets test requirements prescribed by § 178.210-10 of this subchapter.

(32) Specification 103AW, 103A-ALW, 103ANW, 103BW, 103CW, 103EW, 105A200ALW, 111A100F2, 111A60ALW2, 111A60W2, 111A60W5 (§§ 179.100, 179.101, 179.200, 179.201 of this subchapter). Tank cars. Specification 105A200ALW tank cars authorized only for acetic anhydride.

8. In § 173.245b paragraph (a) (8) is revised to read as follows:

§ 173.245b Corrosive solids not specifically provided for.

(a) * * *

(8) Metal portable tank or closed bin not over 7,000 pounds gross weight.

9. § 173.268 paragraph (c) (2) is revised to read as follows:

§ 173.268 Nitric acid.

(c) * * *

(2) Specification 103A-ALW or 111A60ALW2 (§§ 179.200, 179.201 of this subchapter). Tank cars. Specification 111A60ALW2 tank cars have a safety relief valve start-to-discharge pressure setting of 45 pounds per square inch.

10. In § 173.272 paragraph (i) (22) is revised to read as follows:

RULES AND REGULATIONS

§ 173.272 Sulfuric acid.

(1) * * *

(22) Specification 103A,¹ 103AW, 103CW, 105A300W, 111A60W2, 111A100W6, or 111A100F2 (§§ 179.100, 179.101, 179.200, 179.201 of this subchapter). Tank cars. Authorized for sulfuric acid of concentrations 65.25 percent or greater concentrations, provided the corrosive effect in steel is not greater than that of 65.25 percent sulfuric acid, measured at 100°F. Tank cars used for sulfuric acid, mixed acid (nitric and sulfuric acids) (nitrating acid), and other fuming acids, may be equipped with safety vents incorporating frangible discs having a 1/8-inch breather hole in their center. The 1/8-inch breather hole is not permitted in frangible discs of safety vents on oleum tank cars. Specification 103CW and 111A100W6 must have tanks constructed of type 304-L stainless steel.

11. In § 173.273 paragraph (a) (4) and (a) (4) (i) are revised to read as follows:

§ 173.273 Sulfur trioxide, stabilized.

(a) * * *

(4) Specification 103A,¹ 103AW, 105A100W, 111A60W2, or 111A100F2 (§§ 179.100, 179.101, 179.200, 179.201 of this subchapter). Tank cars. Authorized only for stabilized sulfur trioxide. Tank cars must have safety valves of approved design and not subject to rapid deterioration by the lading. Cars equipped with interior heater coils not permitted. Specification 103AW tank cars may be equipped with standpipe electrical heaters approved by the AAR Committee on Tank Cars.

(i) Each tank car must be marked "Sulfur Trioxide" in accordance with the requirements of § 172.330 of this subchapter.

12. In § 173.288 paragraph (f) is added to read as follows:

§ 173.288 Chloroformates.

(f) Specification 111A100W2, 111A100W4, 112A200W, or 112A400F (§§ 179.100, 179.101, 179.200, 179.201 of this subchapter). Tank cars. Authorized only for ethyl chloroformate and methyl chloroformate.

13. In § 173.289 paragraph (a) (2) and (a) (2) (i) are revised to read as follows:

§ 173.289 Formic acid and formic acid solutions.

(a) * * *

(2) Specification 103ALW, 103CW, 103EW, 111A60ALW, or 111A100W6 (§§ 179.200, 179.201 of this subchapter). Tank cars. Specification 103EW tanks must be of Type 316 stainless steel. Specification 111A100W6 tanks must be

of Type 304L or 316L stainless steel. Specification 103ALW tanks without bottom outlets and Specification 111A60ALW tanks are authorized only for concentrations of 97 percent or greater and must be equipped with top loading and unloading devices. Specification 111A100W6 tanks are authorized only for concentrations of 80 percent or greater, must have bottom outlets effectively sealed, and must be equipped with top loading and unloading devices. Specifications 103ALW and 111A60ALW are not authorized for transportation by water.

(i) Each tank car must be marked "Formic Acid" in accordance with requirements in § 172.330 of this subchapter.

14. In § 173.304 the Table in paragraph (a) (2) is amended by revising the entry for vinyl methyl ether, inhibited to read as follows:

§ 173.304 Charging of cylinders with liquefied compressed gas.

(a) * * *

(2) * * *

Kind of gas	Maximum permitted filling density (see note 1)	Containers marked as shown in this column or of the same type with higher service pressure must be used except as provided in § 173.34 (a), (b), § 173.301(j) (see notes following table).
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(Revise)

Vinyl methyl ether (see note 5).

68 DOT-4B150, without brazed seams; DOT-4BA225 without brazed seams; DOT-4BW25; DOT-3A150, DOT-3AA150, DOT-3B150; DOT-25; DOT-3E1800.

15. In § 173.314 the table in paragraph (c) is amended by revising the entries for difluoroethane; dimethylamine, anhydrous; monomethylamine, anhydrous; monochlorodifluoromethane; monochlorotetrafluoroethane; trimethylamine, anhydrous; and vinyl methyl ether, inhibited; and by adding, in alphabetical sequence, an entry for hexafluoropropylene oxide to read as follows:

§ 173.314 Requirements for compressed gases in tank cars.

(c) * * *

Kind of gas	Maximum permitted filling density, note 1	Required tank car, see § 173.31(a) (2) and (3)
(Revise) Difluoroethane, note 13.	79 79 84	DOT-112A400W, DOT-106A500X, 110A500-W, note 7, DOT-105A300-W.
(Revise) Dimethylamine, anhydrous.	59 62 61	DOT-106A500X, DOT-105A300-W, note 4, DOT-112A340W, 112A400W.
(Add) Hexafluoropropylene oxide.	110	DOT-110A500W, note 7.
(Revise) Monochlorodifluoromethane, note 13.	105 110 108	DOT-106A500X, 110A500W, note 7, DOT-105A300W, DOT-112A100W.
(Revise) Monochlorotetrafluoroethane, note 13.	125 126	DOT-105A500X, 110A500W, note 7, DOT-112A400W.
(Revise) Monomethylamine, anhydrous.	60 62 61	DOT-106A500X, DOT-105A300W, note 4, DOT-112A340W, 112A400W.

16. In § 173.336 paragraph (a) (3) is revised to read as follows:

§ 173.336 Nitrogen dioxide, liquid; nitrogen peroxide, liquid; and nitrogen tetroxide, liquid.

(a) * * *

(3) Specification 106A500X or 110A500W (§§ 179.300, 179.301 of this subchapter) tanks. Each tank must be equipped with gas tight valve protection caps which must be approved by the Bureau of Explosives. Tanks must not be equipped with safety devices of any type. Outage must be sufficient to prevent tanks from becoming liquid full at 130°F. (55°C.). (See §§ 174.600 and 177.834(m) of this subchapter for special requirements for rail and highway shipments.) Specification 110A500W tanks must be stainless steel.

17. In § 173.346 paragraph (a) (10) is revised to read as follows:

§ 173.346 Poison B liquids not specifically provided for.

(a) * * *

(10) Specification 103,¹ 103W, 103A,¹ 103ALW, 103AW, 103BW, 104,¹ 104W, 105A100,¹ 105A100W, 109A300ALW, 111A60ALW1, 111A60F1, 111A60W1, 111A60W2, 111A100F2, 111A100W4, 115A60W6, or ARA-IV-A¹ (§§ 179.100,

179.101, 179.200, 179.201, 179.220, 179.221 of this subchapter). Tank cars, Specification 103BW tank cars must be rubber-lined and are authorized only for arsenic acid as prescribed in § 173.349 of this subchapter.

18. In § 173.353 paragraph (a) (2) is revised to read as follows:

§ 173.353 Methyl bromide and methyl bromide mixtures.

(a) * * *

(2) Specification 15A, 15B, 15C, 16A, 19A, or 12B (§§ 178.168, 178.169, 178.170, 178.185, 178.190, 178.205 of this subchapter). Wooden, wire-bound wooden, or fiberboard boxes, with inside metal cans containing not over 1-pound each, or inside metal cans with a minimum wall thickness of 0.007-inch containing not over 1¾-pound each. The 1-pound can must be able to withstand an interior pressure of 130 psig without leakage or permanent distortion and pressure of contents must not exceed 130 psig at 130°F. (55°C.). The 1¾-pound can must be able to withstand an interior pressure of 140 psig without leakage or permanent distortion and pressure of contents must not exceed 140 psig at 130°F. (55°C.). Outage shall be such that the cans will not become liquid full at 130°F. Cans must be of tinplate or lined with suitable material and must have concave or pressure ends.

19. In § 173.358 paragraph (a) (11) is revised to read as follows:

§ 173.358 Hexaethyl tetraphosphate, methyl parathion, organic phosphate compound, organic phosphorous compound, parathion, tetraethyl dithio pyrophosphate, and tetraethyl pyrophosphate, liquid.

(a) * * *

(11) Specification 105A200ALW or 105A300W (§§ 179.100, 179.101 of this subchapter). Tank cars. Authorized for parathion, methyl parathion, and liquid organic phosphate compounds only. The nominal water capacity of a tank car must not exceed 12,000 gallons.

20. In § 173.370 paragraph (a) (2) is added to read as follows:

§ 173.370 Cyanides and cyanide mixtures, dry.

(a) * * *

(2) Specification 12B40 (§ 178.205 of this subchapter). Fiberboard box with inside polyethylene bottles having a minimum thickness of 0.030-inch and not over 5-pound capacity each. Maximum net weight of contents must not exceed 25 pounds per box.

PART 174—CARRIAGE BY RAIL

21. In § 174.104 paragraph (b) (10) is revised to read as follows:

§ 174.104 Class A explosives; car selection, preparation, inspection, and certification.

(b) * * *

(10) The car must be equipped with high-friction composition brake shoes (except metal deck flat cars used for COFC/TOFC service may be equipped with high phosphorus cast iron brake-shoes) and brake rigging designed for this type of brake shoe. Each brake shoe on the car must be at least three-eighths inch thick, and in safe and suitable condition for service.

PART 178—SHIPPING CONTAINER SPECIFICATIONS

22. In § 178.205-17 paragraphs (a) (4) and (a) (5) are added to read as follows:

§ 178.205-17 Closing for shipment.

(a) * * *

(4) All closing flaps may be firmly glued with a hot-melt adhesive of 100 percent solid content of thermoplastic material which will maintain bond at temperature ranging from 20°F. below zero to 165°F. above zero. Adhesive must be applied in not less than eight stripes (except as specified below) on each inner flap, each stripe having a minimum width of ¾-inch after compression. Stripes may not be more than 1½ inches apart and not less than four stripes must be applied on each side of center seam on each inner flap for full length of flap overlap area with one stripe not more than ½-inch from each side of center seam. If less than eight such stripes are applied on each inner flap, adhesive must cover and securely bond not less than 25 percent of flap contact area with bonded areas extending to within ½-inch or less of center seam.

(5) For regular slotted containers, pressure-sensitive tape is authorized for application over the center seams only and extending not less than two inches over the ends of the box. Tape must be not less than 2 inches wide and have a plastic film backing of polyester, polypropylene, or equivalent material. Tape must have a minimum tensile strength of 45 pounds per inch of width in the machine direction and not less than 55 pounds per inch of width in the cross direction and may not be affected by temperature extremes normally encountered during transportation. Boxes closed by means of this pressure-sensitive tape must be capable of passing performance tests prescribed in § 178.210-10.

PART 179—SPECIFICATIONS FOR TANK CARS

23. § 179.202-13 is revised to read as follows:

§ 179.202-13 Sulfur trioxide, stabilized.

Tank cars used to transport sulfur trioxide, stabilized must be equipped with safety relief valves of approved design.

Tanks equipped with interior heating coils are not permitted. Specification 103AW tank cars may be equipped with standpipe electrical heaters approved by the AAR Committee on Tank Cars.

Effective date: This amendment is effective June 2, 1977.

(49 U.S.C. 1803, 1804, 1808; 49 CFR 1.53(e).)

NOTE.—The Materials Transportation Bureau has determined that this document does not contain a major proposal requiring preparation of an Economic Impact Statement under Executive Order 11821 and OMB Circular A-107.

Issued in Washington, D.C., on May 23, 1977.

JAMES T. CURTIS, Jr.,
Director, Materials
Transportation Bureau.

[FR Doc.77-15653 Filed 6-1-77;8:45 am]

CHAPTER V—NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION, DEPARTMENT OF TRANSPORTATION

[Docket No. 74-14; Notice 09]

PART 571—FEDERAL MOTOR VEHICLE SAFETY STANDARDS

Occupant Crash Protection—Nonpassenger Vehicles

AGENCY: National Highway Traffic Safety Administration, DOT.

ACTION: Final rule.

SUMMARY: This notice amends Standard No. 208, Occupant Crash Protection, to extend indefinitely the current occupant crash protection requirements for light trucks and multipurpose passenger vehicles. The question of future requirements for occupant crash protection is presently being considered by the Secretary of Transportation, and thus the current requirements for light trucks and multipurpose passenger vehicles should be continue for the indefinite future.

DATES: Effective date June 2, 1977.

ADDRESSES: Requests for reconsideration should refer to the docket number and be submitted to: Docket Section, Room 5108, National Highway Traffic Safety Administration, 400 Seventh Street SW., Washington, D.C. 20590.

FOR FURTHER INFORMATION CONTACT:

Guy Hunter, Motor Vehicle Programs, National Highway Traffic Safety Administration, Washington, D.C. 20590 (202-426-2265).

SUPPLEMENTARY INFORMATION: The requirements of Standard No. 208 (49 CFR 571.208) have been implemented in three stages. The current stage for trucks and multipurpose passenger vehicles (MPV's) with a gross vehicle weight rating (GVWR) of 10,000 pounds or less specifies a choice of three means to provide occupant protection (S4.2.2) and is scheduled to end August 14, 1977. After that date many of these